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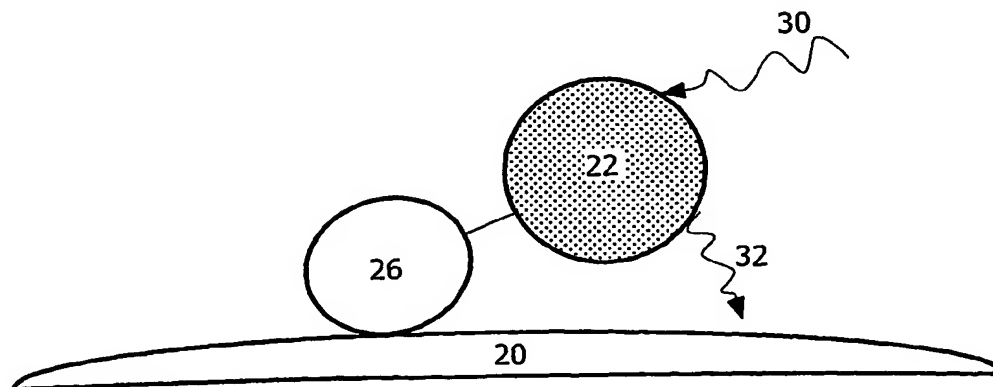
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(54) Title: **RADIATION THERAPY AND MEDICAL IMAGING USING UV EMITTING NANOPARTICLES**



(57) Abstract: The invention relates to UV emitting nanoparticles for radiation therapy purposes. If the nanoparticles are brought indirectly or directly to the diseased tissue, excitation with high energy radiation leads to VUV or UV-C emission. This UV radiation is absorbed by the surrounding organic matrix, resulting in decomposition of the material. The nanoparticles can also be modified by attaching antibodies to the particles by chemical linking or coating. Preferably these antibodies bind specifically to the cell membrane of cancer cells leading to a localised destruction of diseased tissue with a high efficacy and a lower level of destruction of surrounding healthy tissue. Endoscopic detection of the UV emission can be used as a medical imaging technique to locate and study diseased tissue.



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